

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **FUSOR® 208B PANEL BONDING ADH PT B**
Product Use/Class: **Structural Epoxy**

LORD Corporation
111 LORD Drive
Cary, NC 27511-7923 USA

Telephone: 814 868-3180
Non-Transportation Emergency: 814 763-2345
Chemtrec 24 Hr Transportation Emergency No.
800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 03/17/2023

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

Acute toxicity Oral Category 4 - 42.8% of the mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity Inhalation - Dust and Mist Category 4 - 34.3% of the mixture consists of ingredient(s) of unknown toxicity.
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Respiratory sensitization Category 1
Germ cell mutagenicity Category 2
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 1 Cardiovascular system, Respiratory system, Kidney, Nervous System
Specific target organ systemic toxicity (repeated exposure) Category 1 Hematopoietic system, Cardiovascular system, Central nervous system, intestinal tract, Stomach, Kidney, Liver, spleen, thymus, Respiratory system
Hazardous to the aquatic environment - acute hazard Category 3
Hazardous to the aquatic environment - chronic hazard Category 3

GHS LABEL ELEMENTS:**Symbol(s)****Signal Word**

DANGER

Hazard statements

Harmful if swallowed.
Harmful if inhaled.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.(Cardiovascular system, Respiratory system, Kidney, Nervous System)

Causes damage to organs through prolonged or repeated exposure. (Hematopoietic system, Cardiovascular system, Central nervous system, intestinal tract, Stomach, Kidney, Liver, spleen, thymus, Respiratory system)
 Harmful to aquatic life.
 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves.
- Use personal protective equipment as required.
- In case of inadequate ventilation wear respiratory protection.
- Do not breathe dust, fume, mist, vapors, spray.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.

Response

- Immediately call a POISON CENTER or doctor, physician.
- Specific treatment (see supplemental first aid instructions on this label).
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Harmful if absorbed through skin. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath.

Chronic: May affect the gastrointestinal system.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Polyoxypropylenediamine	9046-10-0	5 - 10 %
Phenol	108-95-2	5 - 10 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	PROPRIETARY	0.1 - 0.9 %

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry chemical, Foam, Water fog

UNSUITABLE EXTINGUISHING MEDIA: Not determined for this product.

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Keep container tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self contained breathing apparatus. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of this safety data sheet. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.; Water.; Chlorinated Hydrocarbon; Alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Polyoxypropylenediamine	N.E.	N.E.	N.E.	N.E.	Not applicable
Phenol	5 ppm	N.E.	19 mg/m3 5 ppm	N.E.	S
Amine compound	1 ppm	N.E.	N.E.	N.E.	S
Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable
Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable

Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable
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N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

ENGINEERING CONTROLS: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

Respiratory protection: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. For respirator use observe OSHA regulations (29CFR 1910.134) or use in accordance with applicable laws and regulations of your country or particular locality.

Skin protection: Use neoprene, nitrile, or rubber gloves to prevent skin contact. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Eye protection: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

Other protective equipment: Remove and wash contaminated clothing before reuse.

Hygienic practices: Wash hands before eating, smoking, or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

Odor:	Amine	Vapor Pressure:	N.D.
Appearance:	Gray to black	Vapor density:	Heavier than Air
Physical state:	Paste	Lower explosion limit:	1.1 %(V)
Flash point:	≥ 201 °F, 93 °C	Upper explosive limit:	8.6 %(V)
	Setaflash Closed Cup		
Boiling range:	N.A.	Evaporation rate:	N.A.
Autoignition temperature:	N.D.	Density:	1.23 g/cm ³ (10.26 lb/gal)
Decomposition temperature:	N.D.	Viscosity, dynamic:	≥160,000 mPa.s @ 25 °C
Odor threshold:	N.D.	Viscosity, kinematic:	≥130,081 mm ² /s @ 25 °C
		Volatile by weight:	0.37 %
Solubility in H₂O:	Insoluble	Volatile by volume:	0.44 %
pH:	N.A.	VOC Calculated:	0 lb/gal, 0 g/l
Freeze point:	N.D.		
Coefficient of water/oil distribution:	N.D.		

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerisation will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.; Heat, flames and sparks.; Moisture

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.; Water.; Chlorinated Hydrocarbon; Alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, organic or inorganic nitrogen compounds including traces of hydrogen cyanide., Oxides of aluminum

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

<u>Chemical Name</u>	<u>LD50/LC50</u>
Polyoxypropylenediamine	Oral LD50: Rat 242 mg/kg Dermal LD50: Rabbit 360 mg/kg Dermal LD50: Rabbit 2,980 mg/kg
Phenol	Oral LD50: Rat 340 mg/kg Oral LD50: Mouse 270 mg/kg Dermal LD50: Rabbit 630 mg/kg GHS LC50 (dust and mist): Acute toxicity point estimate 0.55 mg/l
Amine compound	Oral LD50: Rat 1,080 mg/kg Inhalation LC50: Rat 70 mg/l /4 h
Amine compound	Oral LD50: Rat 1,200 mg/kg Dermal LD50: Rat 1,280 mg/kg
Amine compound	Oral LD50: Rat 2140 µL/kg Dermal LD50: Rabbit 866 mg/kg
Amine compound	Oral LD50: Rat 2,500 mg/kg GHS LD50: Acute toxicity point estimate 1,100 mg/kg

Germ cell mutagenicity: Category 2 - Suspected of causing genetic defects.
Components contributing to classification: Phenol.

Carcinogenicity: No classification proposed

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child.
Components contributing to classification: Phenol. Amine compound. Amine compound.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

<u>Chemical Name</u>	<u>Ecotoxicity</u>
Polyoxypropylenediamine	N.D.
Phenol	<u>Fish:</u> Pimephales promelas 20.5 - 25.6 mg/196 h Static Pimephales promelas 32 mg/196 h Oncorhynchus mykiss 5.449 - 6.789 mg/196 h Flow through Oncorhynchus mykiss 7.5 - 14 mg/196 h Static Oncorhynchus mykiss 4.23 - 7.49 mg/196 h semi-static Lepomis macrochirus 13.5 mg/196 h Static Lepomis macrochirus 11.9 - 25.3 mg/196 h Flow through Lepomis macrochirus 11.5 mg/196 h semi-static Poecilia reticulata 34.09 - 47.64 mg/196 h Static Poecilia reticulata 31 mg/196 h semi-static Brachydanio rerio 27.8 mg/196 h Oryzias latipes 33.9 - 43.3 mg/196 h Flow through Oryzias latipes 23.4 - 36.6 mg/196 h Static Pimephales promelas 11.9 - 50.5 mg/196 h Flow through Oncorhynchus mykiss 8.9 mg/196 h <u>Invertebrates:</u> Daphnia magna 4.24 - 10.7 mg/148 h Static Daphnia magna 10.2 - 15.5 mg/148 h Ceriodaphnia dubia 0.0994 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 46.42 mg/196 h Desmodesmus subspicatus 187 - 279 mg/172 h Static
Amine compound	<u>Fish:</u> Poecilia reticulata 248 mg/196 h Static Poecilia reticulata 1,014 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 16 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 1,164 mg/172 h Pseudokirchneriella subcapitata 345.6 mg/196 h Desmodesmus subspicatus 592 mg/196 h
Amine compound	N.D.
Amine compound	<u>Fish:</u> Pimephales promelas 1,950 - 2,460 mg/196 h Flow through Poecilia reticulata > 1,000 mg/196 h semi-static Oncorhynchus mykiss >= 100 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 32 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 495 mg/172 h
Amine compound	<u>Fish:</u> Poecilia reticulata 570 mg/196 h semi-static Pimephales promelas 495 mg/196 h <u>Invertebrates:</u> Daphnia magna 31.1 mg/148 h <u>Plants:</u> Desmodesmus subspicatus 2.5 mg/172 h

	Pseudokirchneriella subcapitata 20 mg/172 h Pseudokirchneriella subcapitata 3.7 mg/196 h
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PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

US DOT Road

Proper Shipping Name: Corrosive liquids, N.O.S.
Hazard Class: 8
Secondary hazard: None
UN/NA Number: 1760
Packing group: III
Emergency Response Guide Number: 154

IATA Cargo

Proper shipping name: Corrosive liquid, N.O.S.
Hazard Class: 8
Hazard class: None
UN number: 1760
Packing group: III
EmS: 8L

IMDG

Proper shipping name: Corrosive liquid, N.O.S.
Hazard Class: 8
Hazard class: None
UN number: 1760
Packing group: III
EmS: F-A; S-B

The listed transportation classification applies to non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight percent less than</u>
Phenol	108-95-2	10.0 %

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the active TSCA Section 8 Inventory or exempt.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 3* FLAMMABILITY: 1 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 2

Revision: Section 1, Section 2, Section 11

Effective Date: 03/17/2023

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **FUSOR® 208B PANEL BONDING ADH PT A**
Product Use/Class: **Structural Epoxy**

LORD Corporation
111 LORD Drive
Cary, NC 27511-7923 USA

Telephone: 814 868-3180
Non-Transportation Emergency: 814 763-2345
Chemtrec 24 Hr Transportation Emergency No.
800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 03/17/2023

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Skin sensitization Category 1
Hazardous to the aquatic environment - acute hazard Category 2
Hazardous to the aquatic environment - chronic hazard Category 2

GHS LABEL ELEMENTS:**Symbol(s)****Signal****Hazard statements**

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention**

Wear protective gloves, eye protection, face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response

Specific treatment (see supplemental first aid instructions on this label).
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice, attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

If eye irritation persists: Get medical advice, attention.
Take off contaminated clothing and wash before reuse.
Collect spillage.

Storage

Refer to Section 7 of this SDS.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Dermal absorption possible. May cause respiratory tract irritation. May cause headache and nausea. May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. IARC has designated titanium dioxide (TiO₂) as Group 2B – possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO₂ and workplace exposure show insufficient evidence for carcinogenic effects. EPA, NTP and OSHA do not designate TiO₂ as a carcinogen and ACGIH designates TiO₂ as A4 - not classifiable as a human carcinogen. Mortality from other chronic diseases, including other respiratory diseases, was not associated with exposure to TiO₂ dust. TiO₂ is not present in this product as a dust and no airborne exposure is expected during application.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Epoxy resin	1675-54-3	45 - 50 %
Bisphenol A (EO)3 diacrylate	64401-02-1	10 - 15 %
Aliphatic glycidyl ether	30499-70-8	5 - 10 %
Titanium dioxide	13463-67-7	0.9 - 1 %

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

Epoxy resin (1675-54-3) can also be represented by CAS 25068-38-6.

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry chemical, Foam, Water fog

UNSUITABLE EXTINGUISHING MEDIA: Not determined for this product.

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Keep container tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self contained breathing apparatus. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Avoid contact. Avoid breathing vapors. Use appropriate respiratory protection for large spills or spills in confined area.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of this safety data sheet. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Epoxy resin	N.E.	N.E.	N.E.	N.E.	Not applicable
Bisphenol A (EO)3 diacrylate	N.E.	N.E.	N.E.	N.E.	Not applicable
Aliphatic glycidyl ether	N.E.	N.E.	N.E.	N.E.	Not applicable
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	N.E.	Not applicable

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

ENGINEERING CONTROLS: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

Respiratory protection: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. For respirator use observe OSHA regulations (29CFR 1910.134) or use in accordance with applicable laws and regulations of your country or particular locality.

Skin protection: Use neoprene, nitrile, or rubber gloves to prevent skin contact. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Eye protection: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

Other protective equipment: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

Hygienic practices: Wash hands before eating, smoking, or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

Odor:	Negligible	Vapor Pressure:	N.D.
Appearance:	White/off-white	Vapor density:	Heavier than Air
Physical state:	Paste	Lower explosion limit:	N.A.
Flash point:	≥ 201 °F, 93 °C	Upper explosive limit:	N.A.
	Setaflash Closed Cup		
Boiling range:	N.A.	Evaporation rate:	N.A.
Autoignition temperature:	N.D.	Density:	1.39 g/cm ³ (11.55 lb/gal)
Decomposition temperature:	N.D.	Viscosity, dynamic:	≥ 140,000 mPa.s @ 25 °C
Odor threshold:	N.D.	Viscosity, kinematic:	≥ 100,719 mm ² /s @ 25 °C
		Volatile by weight:	0.01 %
Solubility in H₂O:	Insoluble	Volatile by volume:	0.03 %
pH:	N.A.	VOC Calculated:	0 lb/gal, 0 g/l
Freeze point:	N.D.		
Coefficient of water/oil distribution:	N.D.		

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerisation will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes., Metal oxides

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Epoxy resin	Oral LD50: Rat 11,400 mg/kg Dermal LD50: Rabbit 20,000 mg/kg
Bisphenol A (EO)3 diacrylate	N.D.
Aliphatic glycidyl ether	N.D.
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg Oral LD50: Rat > 5,000 mg/kg Dermal LD50: rabbit > 5,000 mg/kg GHS LC50 (dust and mist): Rat > 6.82 mg/l /4 h

Germ cell mutagenicity: No classification proposed

Carcinogenicity: No classification proposed

Reproductive toxicity: No classification proposed

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Epoxy resin	<u>Fish:</u> Oncorhynchus mykiss 1.75 mg/196 h <u>Invertebrates:</u> Daphnia magna 2.8 mg/148 h
Bisphenol A (EO)3 diacrylate	N.D.

Aliphatic glycidyl ether	Fish: Cyprinus carpio 75 mg/196 h Static
Titanium dioxide	Fish: Oncorhynchus mykiss > 100 mg/196 h Invertebrates: Daphnia magna > 100 mg/148 h

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

US DOT Road

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Secondary hazard: None
UN/NA Number: 3082
Packing group: III
Emergency Response Guide Number: 171

For US DOT non-bulk road shipments this material may be classified as NOT REGULATED. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

IATA Cargo

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Hazard class: None
UN number: 3082
Packing group: III
EmS: 9L

IMDG

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
Hazard Class: 9
Hazard class: None
UN number: 3082
Packing group: III
EmS: F-A; S-F

The listed transportation classification applies to non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.:

None

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the active TSCA Section 8 Inventory or exempt.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 1 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 2

Revision: Section 1, Section 11, Section 12

Effective Date: 03/17/2023

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.